

**‘Archaeological science as anthropology’:
Time, space and materiality
in rural India and the ancient past**

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— Abstract —

Science and theory have long had an uneasy relationship within archaeology, and this trend is particularly apparent where more recent, 'interpretive' or post-processual paradigms are concerned. In this thesis, anthropological and archaeological science approaches to material culture have been combined in order to address this disciplinary divide, and to explore the possibility of a more integrated approach to the study of the past.

The thesis concerns the findings of an ethnoarchaeological study of domestic space carried out by the author in a rural Rajasthani village in northwestern India. The study employed a unique combination of ethnographic and geoarchaeological methods in order to examine and draw links between conceptual and social aspects of space, and the types of material remains routinely encountered by archaeologists. Interviews and participant observation were employed to investigate how domestic space structures and is structured by people's everyday lives, while soil micromorphology and other geoarchaeological techniques were applied to examine the material dimensions of space, and in particular house floors and building materials.

The integrated approach taken in the study led to a number of important insights that are examined over the course of the thesis. Firstly, it offered a critique of traditional interpretive frameworks within geoarchaeology. While such perspectives normally provide narrowly functional and rational interpretations of findings relating to building materials and occupation sequences, it was found that cognitive and social processes are just as likely to play a role in the creation of both. The idea of micromorphological 'signatures' is therefore rejected. Rather than searching for universal activity signatures, the findings suggest that, as with other artefactual remains (Hodder 1986), micromorphological features must be analysed contextually. Floor sequences cannot be 'read off,' but must be interpreted as aspects of socialised space. In particular, it is shown that materials in the apparently 'natural' world like soil and dung that soil micromorphologists routinely encounter in the analysis of occupation sequences and building materials can become fully cultural products, and must therefore be analysed as material culture.

The ethnoarchaeological study also offers some key insights into the relationship between space and time. The use of soil micromorphology as an analytical tool encouraged investigation of the temporal aspects of the creation and habitation of domestic space. In this thesis, building technologies are therefore analysed as processes rather than final products, and spaces themselves are treated not as static manifestations of structure, but as dynamic entities whose social and symbolic power derives in part from their capacity to evolve and be transformed. It is demonstrated that in rural Rajasthan, houses help to create time and transform people. They also act as a medium through which the domestic group can realise and express its internal struggles, fissions, and transformations. These capabilities derive in part from the very materials from which houses are made (i.e., their 'materiality').

In order to explore some of the implications of the ethnoarchaeological findings, the thesis also examines a particular body of archaeological data. Turning to the Neolithic of

the eastern Mediterranean region, it investigates firstly the issue of soil itself, arguing that this material has been significantly undervalued in studies of the Neolithic period. It is demonstrated that soil probably played an important role in Neolithic processes of domestication, transformation, communication and sedentarisation. Soil micromorphological and other data on floors and plastering from various Eastern Mediterranean sites are then examined in order to provide insights into how the house may have become such a powerful social and symbolic metaphor during the Neolithic period. This leads to an examination of time, and of the changing relationship between space, time and materiality during the Neolithic period.

The study constitutes an important contribution to various fields of study. Within South Asian studies, it represents an important shift away from the traditional focus on textual evidence, spirituality, caste and elite architecture, towards a more balanced approach that recognises the importance of practice, agency, material culture and everyday spaces. It also addresses the need for ethnoarchaeological studies that link concepts and symbols to physical remains. Furthermore, it constitutes the beginnings of a response to the call for geoarchaeologically-inclined ethnoarchaeological studies. In addition, the thesis also explores alternative ways of writing archaeology, in particular by incorporating various forms of narrative over the course of its discussions.

Most importantly though, the study offers an important critique of archaeological science as it is currently practised. It argues that archaeological science is an essentially interpretive activity, and thus requires a more theoretically informed approach than is normally undertaken. It also suggests that it is time for archaeologists, whether archaeological scientists or not, to make a greater effort to combat the scientism that still pervades the discipline, and to begin to re-evaluate, at various scales, the received categories of analysis that are perpetuated by the archaeological science – theory divide. The thesis also demonstrates the benefits of a more integrated approach to science and theory in archaeology. It argues that an interpretive archaeological science, or an interpretive archaeology (or ethnoarchaeology) informed by archaeological science is capable of offering a unique perspective and original insights into the past. In particular, archaeological science encourages greater consideration of the *materiality* of the material world, thus providing some balance to the overly abstract and conceptual approaches to material culture that are still common within interpretive archaeology. Archaeological science will likely constitute an essential component of attempts to explore the embodied or phenomenological experience of material culture in the past, and will thus play an important role in the development of perspectives that view the material world as a crucial component rather than an epiphenomenon of human history.

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The ground, the ground beneath our feet. My father the mole could have told Lady Spenta a thing or two about the unsolidity of solid ground. The tunnels of pipe and cable, the sunken graveyards, the layered uncertainty of the past. The gaps in the earth through which our history seeps and is at once lost, and retained in metamorphosed form. The underworlds at which we dare not guess.

— Salman Rushdie, *The Ground Beneath Her Feet* (1999: 54)

O sweet spontaneous
earth how often have
the
doting

fingers of
prurient philosophers pinched
and poked

thee
,has the naughty thumb
of science prodded
thy

beauty .how
often have religions taken
thee upon their scraggy knees
squeezing and

buffetting thee that thou mightest conceive
gods ...

— e.e. cummings (1994: 18)